

REMARKS / ARGUMENTS

The present application includes pending claims 1-40, all of which have been rejected. By this Amendment, claims 2-3, 11, 22 and 24 have been amended, as set forth above, to further clarify the language used in these claims and to further prosecution of the present application. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 1-7, 14-21, 24-29, 32-35, and 39-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,179,728, issued to Sowadski (hereinafter, Sowadski), in view of U.S. Patent No. 4,812,849, issued to Otto (hereinafter, Otto). Claims 8-10, 30-31, and 37-38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sowadski, in view of Otto, and further in view of U.S. Patent No. 6,298,244, issued to Boesch et al. (hereinafter, Boesch). Claims 11-13 and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sowadski, in view of Otto, and further in view of U.S. Patent No. 5,794,131, issued to Cairns (hereinafter, Cairns). Claim 36 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sowadski, in view of Otto, and further in view of U.S. Patent No. 6,026,287, issued to Puechberty et al. (hereinafter, Puechberty).

. The Applicant respectfully traverses these rejections at least based on the following remarks.

REJECTION UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure ("MPEP") states the following:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

See MPEP at § 2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (emphasis added). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination," and that "although a prior art device 'may be capable of being modified to run the way the apparatus is claimed, there must be a *suggestion or motivation in the reference* to do so'" (citing *In re Mills*, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990)). Moreover, MPEP § 2143.01 also states that the level of ordinary skill in the art cannot be relied upon to provide the suggestion..., citing *AI-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999). Additionally, if a *prima*

facie case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

I. The Proposed Combination of Sowadski and Otto Does Not Render Claims 1-7, 14-21, 24-29, 32-35, and 39-40 Unpatentable

The Applicant now turns to the rejection of claims 1-7, 14-21, 24-29, 32-35, and 39-40 as being unpatentable over Sowadski in view of Otto. The Applicant notes that the proposed combination of Sowadski and Otto forms the basis for all of the pending rejections.

A. Independent Claim 1

With regard to the rejection of independent claim 1 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Sowadski and Otto does not disclose or suggest at least the limitation of "generating a signal at a particular frequency, the signal being associated with a harmonic frequency signal disposed at a harmonic frequency," as recited by the Applicant in independent claim 1.

The Office Action states the following:

With respect to claim 1, Sowadski discloses a method for reducing phase noise (Abstract), comprising: Generating a signal at a particular frequency, the signal being associated with a harmonic frequency signal disposed at a harmonic frequency (col.2, lines 1-

36, col. 3, lines 7-40, Fig.1).

See Office Action at page 2. Initially, the Applicant points out that the Abstract of Sowadski discloses a system for suppressing spurious product signals and radiation resulting from the leakage of local oscillator signal energy in radio receivers. See Sowadski at Abstract. In this regard, the Abstract of Sowadski does not disclose or suggest "a method for reducing phase noise," as stated by the Examiner.

The Examiner further relies for support to Figure 1, col. 2, lines 1-36 and col. 3, lines 7-40 of Sowadski. Figure 1 and the above citations of Sowadski (col. 2, lines 1-36 and col. 3, lines 7-40) disclose a system a system for suppressing spurious product signals and radiation resulting from the leakage of local oscillator signal energy in radio receivers by utilizing a 0 degree and 180 degree splitters, as well as a signal combiner. The only signal being generated with regard to Figure 1, is the local oscillator signal (LOS) 35. However, Sowadski does not disclose or suggest that the LOS 35 is "associated with a harmonic frequency signal disposed at a harmonic frequency," as recited in Applicant's claim 1. Otto does not overcome this deficiency of Sowadski.

Assuming for the sake of argument that the LOS 35 is "associated with a harmonic frequency signal disposed at a harmonic frequency," the Examiner's argument is still deficient. The Examiner is using Otto to modify Sowadski so that it incorporates a band pass filter to suppress a certain frequency range of the

signal. The Examiner is referred to the following citation of Sowadski:

A tunable synthesizer 24 generates a local oscillator signal LOS having a frequency selected to generate the desired intermediate frequency when the local oscillator signal LOS is mixed with the communications signal RFS.

See Sowadski, col. 3, lines 7-11. In this regard, the LOS 35 is generated with a specific frequency and attenuation of LOS 35 with a band pass filter (as suggested by the Examiner with the combination of Sowadski-Otto) will result in generating the incorrect intermediate frequency by the mixers 22a and 22b. The Applicant respectfully draws the attention of the Examiner to the prohibition as set forth in M.P.E.P. § 2143.01 which states that "[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." See M.P.E.P. § 2143.01. As explained above, it will be improper to combine Sowadski and Otto as such combination would render Sowadski inoperable and "unsatisfactory for its intended purpose."

Therefore, the proposed combination of Sowadski and Otto does not teach or suggest "generating a signal at a particular frequency, the signal being associated with a harmonic frequency signal disposed at a harmonic frequency," as recited in Applicant's claim 1. Accordingly, the proposed combination of Sowadski and Otto does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claims 21 and 32 are similar in many

respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 21 and 32 are also allowable over the references cited in the Office Action at least for the reasons stated above with regard to claim 1.

B. Rejection of Dependent Claims 2-7, 14-20, 24-29, 33-35, and 39-40

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 21, and 32 under 35 U.S.C. § 103(a) as being anticipated by Sowadski in view of Otto has been overcome and request that the rejection be withdrawn. Additionally, claims [2-7, 14-20], 24-29, and [33-35, 39-40] depend from independent claims 1, 21, and 32, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 1-7, 14-21, 24-29, 32-35, and 39-40.

II. Rejection of Dependent Claims 8-10, 30-31, and 37-38

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 21, and 32 under 35 U.S.C. § 103(a) as being anticipated by Sowadski in view of Otto has been overcome and request that the rejection be

withdrawn. Additionally, since the additional cited reference (Boesch) does not overcome the deficiencies of Sowadski and Otto, claims 8-10, 30-31, and 37-38 depend from independent claims 1, 21, and 32, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 8-10, 30-31, and 37-38.

III. Rejection of Dependent Claims 11-13 and 22-23

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 21, and 32 under 35 U.S.C. § 103(a) as being anticipated by Sowadski in view of Otto has been overcome and request that the rejection be withdrawn. Additionally, since the additional cited reference (Cairns) does not overcome the deficiencies of Sowadski and Otto, claims 11-13 and 22-23 depend from independent claims 1 and 21, respectively, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 11-13 and 22-23.

IV. Rejection of Dependent Claim 36

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 21, and 32 under 35 U.S.C. § 103(a) as being anticipated

by Sowadski in view of Otto has been overcome and request that the rejection be withdrawn. Additionally, since the additional cited reference (Puechberty) does not overcome the deficiencies of Sowadski and Otto, claim 36 depends from independent claim 32, and is, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 36.

CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-40 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and request that the Examiner telephone the undersigned Attorney at (312) 775-8176.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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